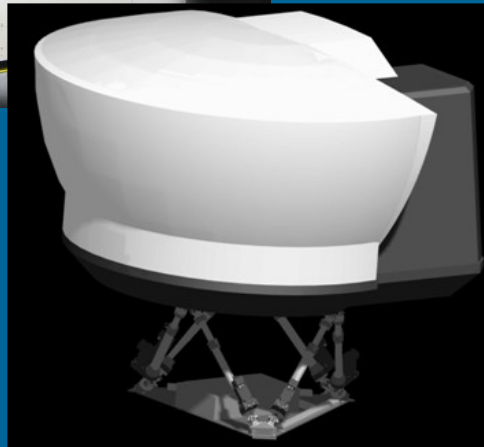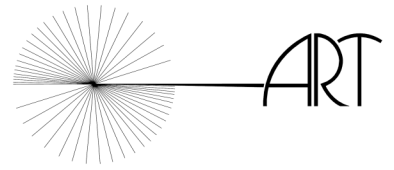# Advanced Rotorcraft Technology, Inc.

ART

FlightLine Training Simulators

For Rotorcraft and Fixed Wing

Fixed Based or Full Motion Simulators

FAA FTD Level 6,7 or FFS Level B,C,D

High Fidelity Simulation Models

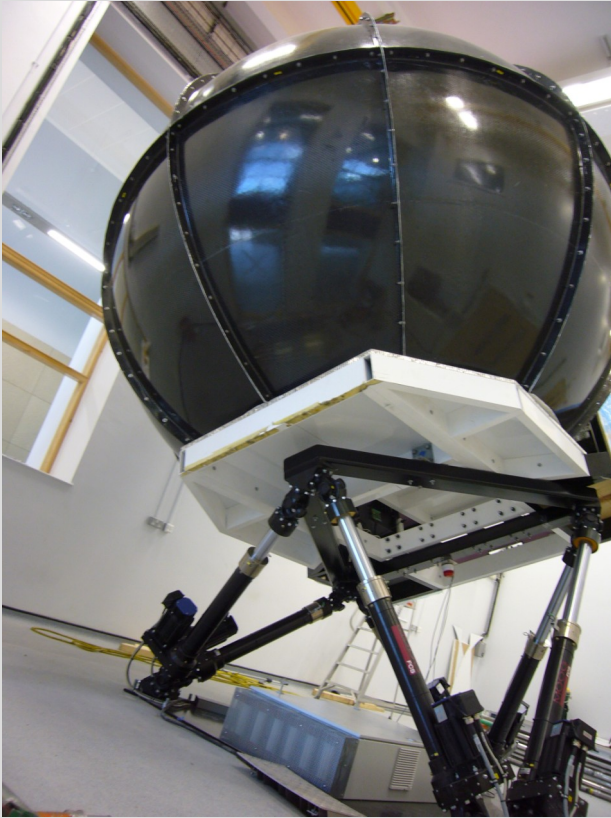Simulated or Stimulated Avionics

Powerful and intuitive Instructor Station

The ART of simulation.

FlightLine Training Simulators

Advanced **R**otorcraft **T**echnology, Inc. (ART) has since 1982 been on the forefront of advanced aerospace technology. Building upon our extensive experience, we have developed the **FlightLine** product line to provide turnkey and certified hardware/software simulator systems.

Aircraft Specific Cockpit

FlightLine is an advanced simulator that provides an aircraft-specific cockpit with high fidelity replicas of the aircraft instrument panels and switches.

FlightLine cockpits are of the highest quality and can support instrument backlighting and Night Vision compatibility.

Aerodynamic Models

ART has created the leading industry software **FLIGHTLAB** for development of physics based flight dynamic models. All FlightLine simulators feature high fidelity FLIGHTLAB aerodynamic models certifiable to FAA Level D standards. ART can develop a FlightLine simulator using either an aircraft data package or flight test data. ART can arrange and perform an aircraft flight test program.

Visual System

FlightLine simulators have been designed to use state-of-art commercial visual systems. FlightLine has adopted the Common Image Generator Interface (CIGI) and is therefore capable of using a variety of COTS image rendering software that has adopted this interface.

The Image Generation system provided with FlightLine will run data bases that have been developed in the industry standard OpenFlight format. ART can provide custom data bases as required or data base modeling and editing tools can be provided to allow the Buyer to generate their own data bases. The editing tools include the ability to generate any required geospecific airport.
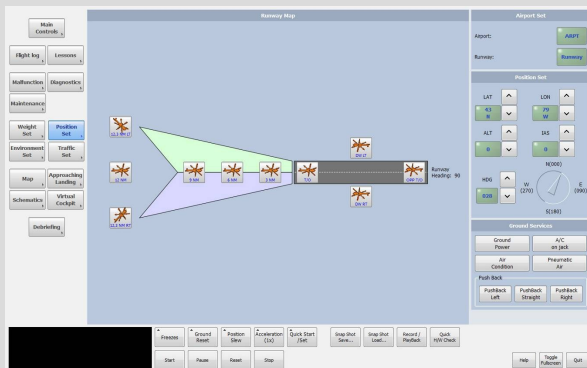

Simulator visual systems support either dome projected or collimated display systems. FlightLine simulators can support LCoS or laser projectors. Simulators include software that provides geometry correction and edge blending.

Instructor Station

FlightLine simulators can be provided with a on-board or an off-board instructor station. ART has designed the instructor station software to be both powerful and intuitive.

The instructor station software provides complete simulator control with an extensive set of features that include malfunctions, freezes, initial conditions, environmental control, and aircraft repositioning. The instructor station graphical user interface has a modern look and feel and is designed for touch screen use.

Avionics

FlightLine simulators can be provided with either simulated or stimulated avionics. ART can provide avionic simulator solutions for the most advanced aircraft glass cockpits. ART can also provide re-hosted avionic software when available from the manufacturer. Avionic simulations are of the highest fidelity and can be developed from an aircraft data package or reversed engineered.
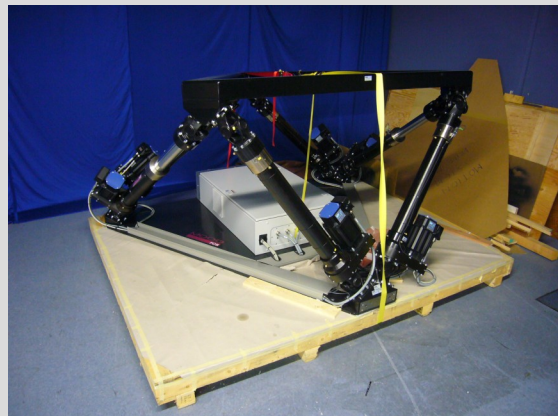

Control Loading

FlightLine simulators provide for full simulation of aircraft primary and secondary flight controls using state-of-the-art MOOG Electrical Control Loaders.

The Control Loading System simulates the static and dynamic control forces as well as the deflections of all applicable primary flight controls. The Control Loading Systems will also simulate selected secondary controls that experience control forces in the actual aircraft.

Motion Platform

FlightLine simulators provide for an optional six degree of freedom motion platform. ART will select the motion platform based on cockpit weight and performance requirements.

Warranty and Support

ART provides FlightLine simulators with a full warranty. ART will also offer an optional program that will support the FlightLine simulator with spare parts and up-grades throughout its operational life.
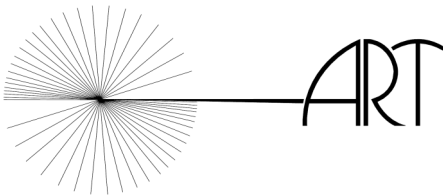
Certification

FlightLine simulators can be FAA or JAA certified. Fixed based simulators are normally certified to FAA FTD Level 6 or 7 and motion simulators are normally certified to FAA Level B,C, or D.

Military and Commercial Aircraft

Aircraft

- **UH-60 A/L**
- **AH-64 A/D**
- **OH-58D**
- **CH-47D**
- **SH-60B**
- **AH-1W**
- **Huey II**
- **Lynx**
- **OH-6**
- **Super Puma**
- **EC-135**
- **Bell 206**
- **R-22**
- **F-16**
- **Boeing 737**
- **T-45**
- **Airbus A320**
- **Airbus A340**

Rotorcraft and Fixed Wing

FlightLine Simulators

ART also produces FLIGHTLAB development software to prototype, analyze, validate and simulate in real-time flight dynamics models. Pre-developed aircraft models for simulator and engineering use are also available for purchase.

Advanced Rotorcraft Technology, Inc.

635 Vaqueros Avenue, Sunnyvale, CA 94085 USA

Tel: +1.408.523.5100 Fax: +1.408.732.1206

E-mail: info@flightlab.com

www.flightlab.com